

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re Application of:

Kazushi TORII et al.

Serial Number: 10/053,659

Art Group Unit: 1711

Filed: January 24, 2002

Examiner: A. Woodward

For: WATER-ABSORBING AGENT AND PRODUCTION PROCESS THEREFOR, AND  
WATER-ABSORBENT STRUCTURE

DECLARATION UNDER 37 CFR §1.132

Honorable Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

I, Kazushi TORII, a citizen of Japan, hereby declare and state the following:

1. I graduated from the Department of Applied Chemistry, Faculty of Engineering, Osaka University, Osaka, Japan in March 1997, and also received a Master of Engineering from the Faculty of Engineering, Osaka University, Osaka, Japan in March 1999.

2. Since April 1999, I have been employed by Nippon Shokubai Co., Ltd. of Osaka, Japan, the assignee of the present application. During my employment there, I have been engaged in research and development of water absorbent resin at the Superabsorbents Research Center of the company.

3. I am also a co-inventor of the present application.

4. I have read and am familiar with the Office Action dated September 24, 2004 and the Office Action dated March 21, 2005, in the above-referenced patent application.

5. I have read and am familiar with the contents of the following patent related document(s) cited in the Office Action dated September 24, 2004 and the Office Action dated March 21, 2005: WO 95/22358.

BEST AVAILABLE COPY

6. Under my supervision and control, the following experiments were conducted.

### EXPERIMENTS

#### (1) Water-absorbing resin

I have obtained a sample of "Aqualic CA L76lf (lot # 9R05-007)". The lot number of this sample is different from that of L76lf as used in Example 2 of WO'358 (lot # 4N22-029).

A water-absorbing resin (C-2) was prepared in the same way as of Comparative Referential Example 3 of the present application.

The properties of L76lf (lot # 9R05-007) and the water-absorbing resin (C-2) were measured according to the procedure described in the specification of the present application and WO'358.

The results and the values described in the specification of the present application and WO'358 are shown in Table 1 below.

#### (2) Absorbent material

An absorbent material was prepared in the same way as of Example 3 of WO'358 by using L76lf (lot # 9R05-007) instead of L76lf (lot # 4N22-029).

Comparative water-absorbing agent (6) was prepared in the same way as of Comparative Example 6 of the present application by using a water-absorbing resin (C-2).

The properties of the absorbent material as obtained from L76lf (lot # 9R05-007) and the comparative water-absorbing agent (6) were measured according to the procedure described in the specification of the present application and WO'358.

The results and the values described in the specification of the present application and WO'358 are shown in Table 2 below.

BEST AVAILABLE COPY

Table 1

Property	Measurement method	L76lf (lot # 4N22-029) (Example 3 of WO'358)	L76lf (lot # 9R05-007)	Water- absorbing resin (C-2) (Comparative Referential Example 3 of the present application)
Gel volume (saline) (g/g)	Page 53, line 21 to page 54, line 5 (PA)	-	28.2	28.2 (*2)
Gel volume (Jayco synthetic urine) (g/g)	Page 32, line 29 to page 33, line 2 (WO)	36.4 (*1)	36.4	36.5
AAP (g/g)	Page 54, lines 6-27 (PA)	-	21.3	21.3 (*2)
SFC ( $10^{-7} \times$ $\text{cm}^3 \times \text{s} \times$ $\text{g}^{-1}$ )	Page 59, line 3 to page 60, line 20 (PA)	-	10	10 (*2)

\*1 The value is described in WO'358.

\*2 The value is described in the specification of the present application.

PA Specification of the present application

WO WO'358

BEST AVAILABLE COPY

Table 2

Property	Measurement Method	Absorbent material obtained from L76lf (lot # 4N22-029) (Example 3 of WO'358)	Absorbent material obtained from L76lf (lot # 9R05-007)	Comparative water-absorbing agent (6) obtained from water-absorbing resin (C-2) (Comparative Example 6 of the present application)
Gel volume (saline) (g/g)	Page 53, line 21 to page 54, line 5 (PA)	-	27.4	27.5 (*2)
Gel volume (Jayco synthetic urine) (g/g)	Page 32, line 29 to page 33, line 2 (WO)	35.0 (*1)	35.0	35.1
AAP (g/g)	Page 54, lines 6-27 (PA)	-	21.1	21.1 (*2)
SFC ( $10^{-7} \times \text{cm}^3 \times \text{s} \times \text{g}^{-1}$ )	Page 59, line 3 to page 60, line 20 (PA)	-	46	45 (*2)
0.5hr PT (cm)	Page 63, lines 14-20 (PA)	-	11.0	11.0 (*2)
$\Delta$ PT (cm)	Page 63, line 21 to page 64, line 4 (PA)	-	4.7	4.7 (*2)
BBS (gf) (*3)	Page 29, line 12 to page 30, line 31 (WO) Page 60, line 21 to page 63, line 6 (PA)	124 (*1)	124	124 (*2)
16hr BBS (gf)	Page 63, lines 7-13 (PA)	-	69	70 (*2)
DBBS (%)	Page 64, lines 5-12 (PA)	-	44.4	43.5 (*2)

\*1 The value is described in WO'358.

\*2 The value is described in the specification of the present application.

\*3 The measurement method of BBS is described both in WO'358 and the specification of the present application. These methods are the same.

PA Specification of the present application

WO WO'358

BEST AVAILABLE COPY

I hereby declare that all statements made herein of my own knowledge are true; and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Signed this 17th day of June, 2005

Kazushi Torii

Kazushi TORII

Residence:

Himeji-shi, Hyogo, Japan

Citizenship:

Japan

Post Office Address:

F202, 931-11, Hamada, Aboshi-ku,  
Himeji-shi, Hyogo, 671-1292, JAPAN

BEST AVAILABLE COPY